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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,141	01/22/2002	Ralph L. Brooker	47176-00621	1090

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EXAMINER	
LE, HOANGANH T	
ART UNIT	PAPER NUMBER

2821

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/051,141

Applicant(s)

BROOKER et al

Examiner

HOANGANH LE

Art Unit

2821



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____
2a) This action is FINAL. 2b) This action is non-final.

- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-56 is/are pending in the application.
4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-56 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

- a) All b) Some* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

- a) The translation of the foreign language provisional application has been received.

- 15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) Other: _____

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: on pages 8 and 9, reference numbers 138,140,142,144, 101,134, and 136 are not in the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the readout device of claims 42,43,54, and 55 must be shown or the feature(s) canceled from the claim(s). No

new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The disclosure is objected to because of the following informalities: on page 8, line 12, "32" should be --132--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14,20-23 and 47-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 14, "said ligatures" ^{has no} _^ antecedent basis.

In claim 20, "said support structures" has no antecedent basis.

In claim 47, are the sub-reflector of line 2 and the sub-reflector of line 3 the same?

In claim 56, "at least two actuators" and "said support struts" have no antecedent basis.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1,6,8,9,10,14-16,20,22,23,24,30,32-36,41,47,48, and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruns et al (the US Patent No. 4,804,971).

The Bruns et al reference teaches in figure 1 a self-pointing antenna comprising: an antenna comprising a reflector 10, a feed 27, an elongated boom arm 24 coupled to the reflector 10 and supporting the feed 27, and a pair of support struts 28a,28b coupled between the reflector and the boom arm; and an actuator 32 operatively coupled with the support struts for permitting movement of the support struts for adjusting the position of the feed relative to the reflector. Each of the support struts comprises an elongated ligature and the actuator comprises a mechanism for adjusting the effective length of one or both of the ligatures (figure 1). The actuator is mounted to the reflector (figure 1). The actuator comprises a pair of actuators 32 mounted to the reflector and each operatively coupled to the one of the ligatures.

10. Claims 34,41,44-49 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Szirtes (the US Patent No. 3,553,731).

The Szirtes reference teaches an antenna comprising: a reflector 10, one of a feed and a sub-reflector 13, and a plurality of support struts 21-26 coupled between the reflector 10 and the one of a feed and a subreflector 13 and supporting the one of the feed and the subreflector; and at least one actuator 31-36 for adjusting the position of the one of the feed and the subreflector relative to the reflector. The actuator 39 is mounted to the boom arm and comprises a two-axis actuator. At least two actuators 31-36 are mounted to the reflector.

11. Claims 47-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Choi (the US Patent No. 5,874,925).

The Choi reference teaches in figure 2 an antenna comprising: a reflector 3 , a feed 4, means 6 for supporting the feed, and means 123,124,125 for adjusting the position of the feed. The means for adjusting comprises a two-axis motorized carriage 124. An inherent readout device is coupled to the motor.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the

manner in which the invention was made.

13. Claims 2-5,7,11-13,17-19,21,25-29, and 31are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns et al (cited above) in view of Adams (the US Patent No. 6,350,037).

The Bruns et al reference teaches every feature of the claimed invention, excluding the actuator being mounted to the boom arm and the actuator comprising an automotive mirror-glass actuator.

The Adams reference teaches the use of an automotive mirror-glass actuator in order to improve the performance of the actuator.

Since one of ordinary skill in the art would recognize the benefit of improving the performance of the actuator, it would have been obvious to provide Bruns et al with an automotive mirror-glass actuator as taught by Adams.

Regarding claims 2,3,4,7,11-13,17,18,21,25-28, and 31, it would have been an obvious matter of design choice to have the actuator being mounted to the boom arm, to a top side of the boom arm, to a bottom side of the boom arm, since applicant has not disclosed that the actuator being mounted to the boom arm, or to a top side of the boom arm, or to a bottom side of the boom arm solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the

actuator being mounted to the reflector as taught by Bruns et al.

14. Claims 37-40 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns et al (cited above) in view of Choi (the US Patent No. 5,874,925).

The Bruns et al reference teaches every feature of the claimed invention, excluding the actuator comprising a two-axis motorized carriage.

The Choi reference teaches in figure 2 the use of an actuator comprising a two-axis motorized carriage in order to improve the performance of the actuator.

Since one of ordinary skill in the art would recognize the benefit of improving the performance of the actuator, it would have been obvious to provide Bruns et al with a two-axis motorized carriage as taught by Choi.

Correspondence

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Hoanganh Le whose telephone number is (703) 308-4921.

16. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

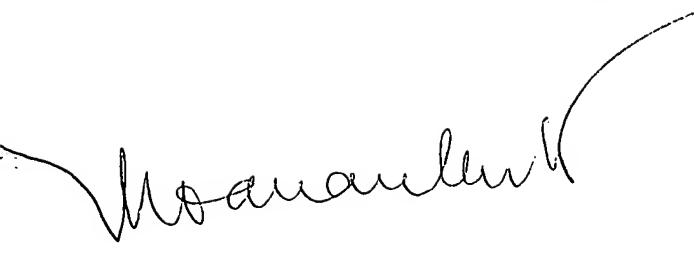
17. Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or

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File Paper Number: 2

(703) 308-7724.

Hoanganh Le
Primary Examiner
Art Unit 2821
April 8, 2003


Hoanganh Le
Primary Examiner